IAP15 Rec'd PCT/PTO 14 AUG 2006

PTO-1390 (Rev. 07-2005)
Approved for use through 3/31/2007. OMB 0651-0021
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL LETTER TO THE UNITED STATES	ATTORNEY'S DOCKET NUMBER 20040114						
DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371	U.S. APPLICATION NO. (If known, see 37 CFR 1.5)						
INTERNATIONAL APPLICATION NO. INTERNATIONAL FILING DATE US 2004/036446 02 NOV 2004	PRIORITY DATE CLAIMED 20 JAN 2004						
TILE OF INVENTION Multiple Frequency Through-The-Wall Motion Detection And Ranging Using A Difference-Rased Estimation Technique							
APPLICANT(S) FOR DO/EO/US Paul D. Zemany, Eldon M. Sutphin							
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:							
1. X This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.							
2. This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371.							
3. This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.							
4. X The US has been elected (Article 31).							
5. X A copy of the International Application as filed (35 U.S.C. 371(c)(2))	A copy of the International Application as filed (35 U.S.C. 371(c)(2))						
a. is attached hereto (required only if not communicated by the International Bureau).							
b. has been communicated by the International Bureau.	b. has been communicated by the International Bureau.						
c. x is not required, as the application was filed in the United States Reco	c. x is not required, as the application was filed in the United States Receiving Office (RO/US).						
6. An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).							
a. is attached hereto.	a. is attached hereto.						
b. as been previously submitted under 35 U.S.C. 154(d)(4).	b. 🔀 has been previously submitted under 35 U.S.C. 154(d)(4).						
7. Amendments to the claims of the International Application under PCT Article 1	Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))						
a. are attached hereto (required only if not communicated by the International Bureau).							
b. have been communicated by the International Bureau.							
c. have not been made; however, the time limit for making such amer	c. have not been made; however, the time limit for making such amendments has NOT expired.						
d. x have not been made and will not be made.	d. 🗵 have not been made and will not be made.						
8. An English language translation of the amendments to the claims under PCT	An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).						
9. 😦 An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). (was pre-	An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). (was previously submitted in PCT application)						
O. An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).							
Items 11 to 20 below concern document(s) or information included:							
11. An Information Disclosure Statement under 37 CFR 1.97 and 1.98.	An Information Disclosure Statement under 37 CFR 1.97 and 1.98.						
12. An assignment document for recording. A separate cover sheet in compliance	An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.						
A preliminary amendment.							
14. An Application Data Sheet under 37 CFR 1.76.	An Application Data Sheet under 37 CFR 1.76.						
15. A substitute specification.	A substitute specification.						
16. X A power of attorney and/or change of address letter.	A power of attorney and/or change of address letter.						
17. A computer-readable form of the sequence listing in accordance with PCT Rul	A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821-1.825.						
18. A second copy of the published International Application under 35 U.S.C. 154	A second copy of the published International Application under 35 U.S.C. 154(d)(4).						
19. A second copy of the English language translation of the international applicat	A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).						

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C: 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. Page 1 of 3

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U.S. APPINCATIONING (MIDWITTER CTR 1.5)	INTERNATIONAL AP	INTERNATIONAL APPLICATION NO. ATTORNEY'S DOCKET N		CKET NUMBER	
U.S. APPLICATION NO. (Report 322 FR 1.5) US 2004/036446		36446	20040114		
20. Other it	ems or information:				
The follow	wing fees have been submitted			CALCULATIONS	PTO USE ONLY
	national fee (37 CFR 1.492(a))		\$300	\$ 300.00	
22. 🔀 Exami	nation fee (37 CFR 1.492(c))	-			
If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)\$0 All other situations\$200				\$ 200.00	
23. Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)\$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority			\$ 100.00		
	OTAL OF 21, 22 and 23 =	· 		\$600.00	
Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets		ndditional 50 or fraction p to a whole number)	RATE		
- 100 =	/50 =		x \$250	\$	<u> </u>
Surcharge of \$130 after the date of co	0.00 for furnishing any of the search ommencement of the national stage	fee, examination fee, or the (37 CFR 1.492(h)).	oath or declaration	\$	=
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	17 - 20 =	0	x \$ 50	\$ 0.00	
Independent claim	s 3 -3=	0	× \$200	\$ 0.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable) + \$360			\$		
TOTAL OF ABOVE CALCULATIONS =			\$ 0.00		
Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½.					
SUBTOTAL =			\$ 600.00		
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).			\$		
TOTAL NATIONAL FEE =			\$ 600.00		
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +		\$			
TOTAL FEES ENCLOSED =			\$ 600.00		
				Amount to be refunded:	\$
				Amount to be charged	\$ 600.00

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a. A check in the amount of \$	to cover the abov	· AP20Rec'd PCT/PTO 14 AUG 2006			
b. A Please charge my Deposit Account No A duplicate copy of this sheet is enclose	190130 in the amount of \$	600.00 to cover the above fees.			
The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 190130 A duplicate copy of this sheet is enclosed.					
d. Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.					
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.					
SEND ALL CORRESPONDENCE TO:		Daniel J. Com			
BAE Systems		SIGNATURE			
65 Spit Brook Road		Daniel J. Long			
NHQ-1-719		29,404			
Nashua, NH 03060		REGISTRATION NUMBER			
	·				

10/589322

EXPRESS MAIL CERT: ____EV834804406US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: Zemany, et al.

Filed:

Herein

Atty. Dkt. No: 20040114

Multiple Frequency Through-The-Wall Motion Detection And Ranging Using A

Difference-Based Estimation Technique

CERTIFICATE OF MAILING 37 CFR 1.10: I certify that this correspondence is being deposited on the below date with the U.S. Postal Service with sufficient postage as EXPRESS MAIL addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Date:

Signed:

Moric Outasciano

Dear Sir:

LETTER OF TRANSMITTAL

Submitted herewith pursuant to 35 USC 371, is a US National Stage Patent Application of International Application No. PCT/US2004/036446.

PAYMENT: Authorization is hereby given to charge filing fee to Deposit Account 190130. All necessary fees relating to the attached submittal, if any, are intended to be included. However, the Office is hereby authorized to charge any deficiency or credit any overpayment in the fees to deposit account 190130.

Respectfully submitted,

Customer Number 22500 Correspondence Address: **BAE SYSTEMS** 65 Spit Brook Road, NHQ1-719 Nashua, NH 03060

Tel. No. (603) 885-2643 Fax. No. (603) 885-2167 Daniel J. Long, Reg. No. 29,404